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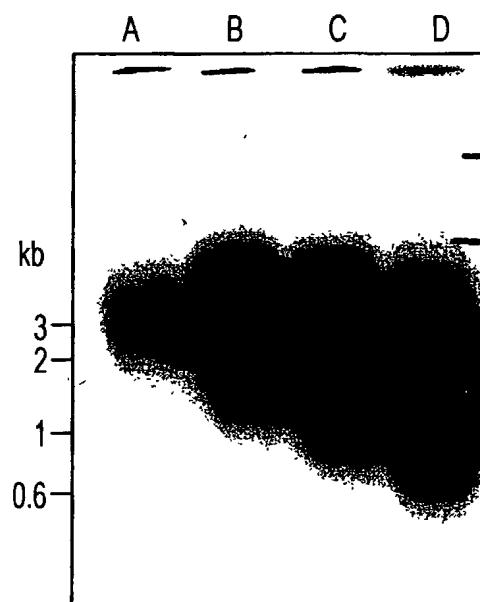


FIG. 1

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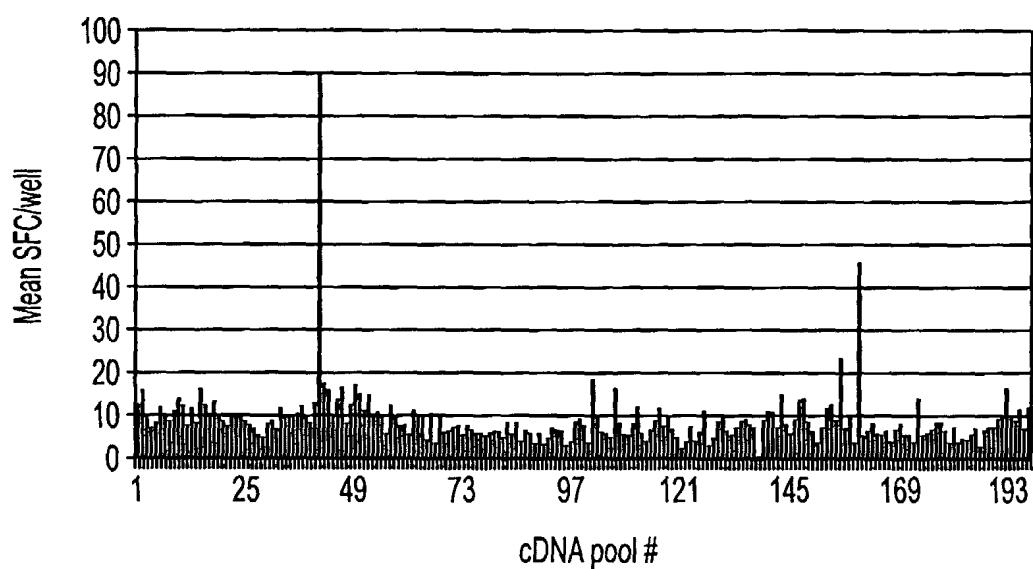


FIG. 2

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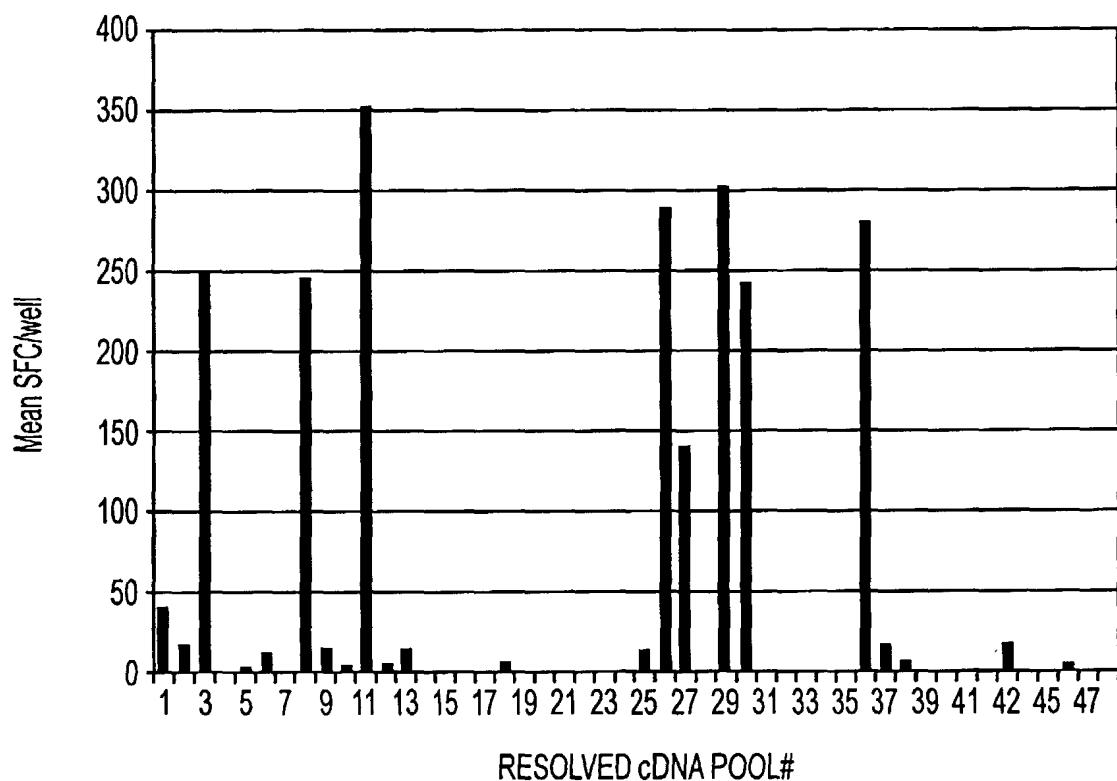


FIG. 3

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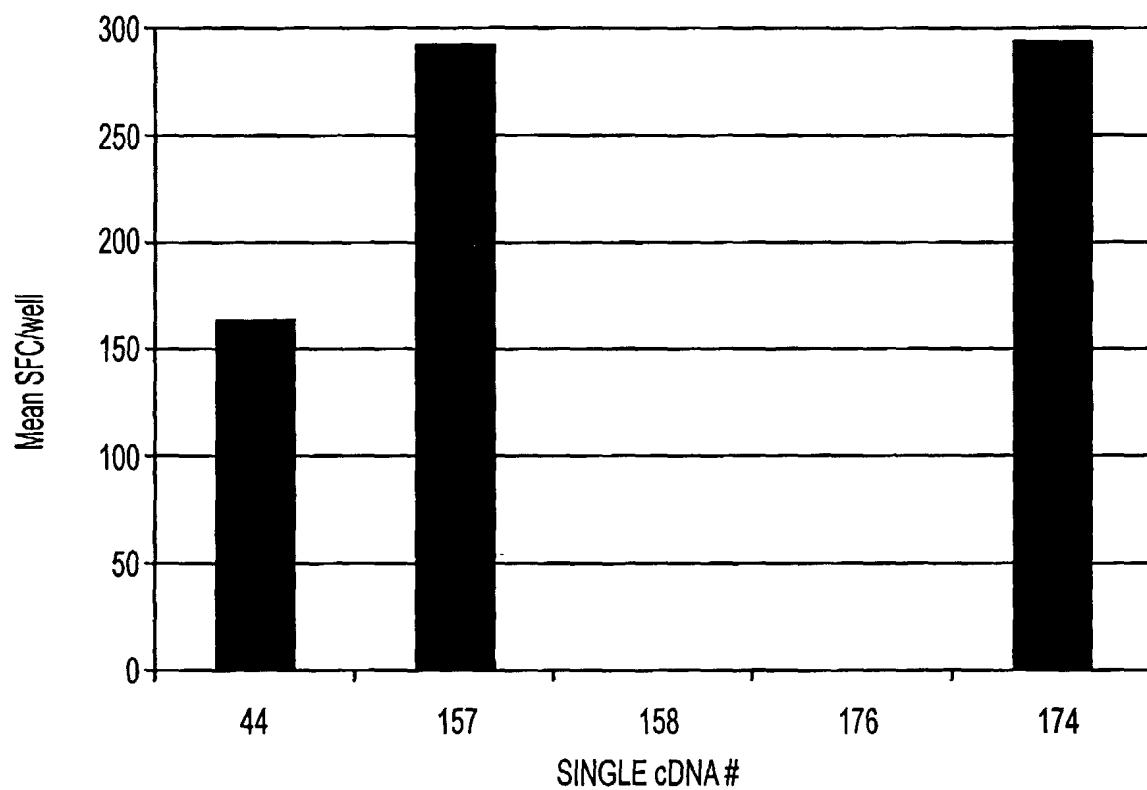


FIG. 4

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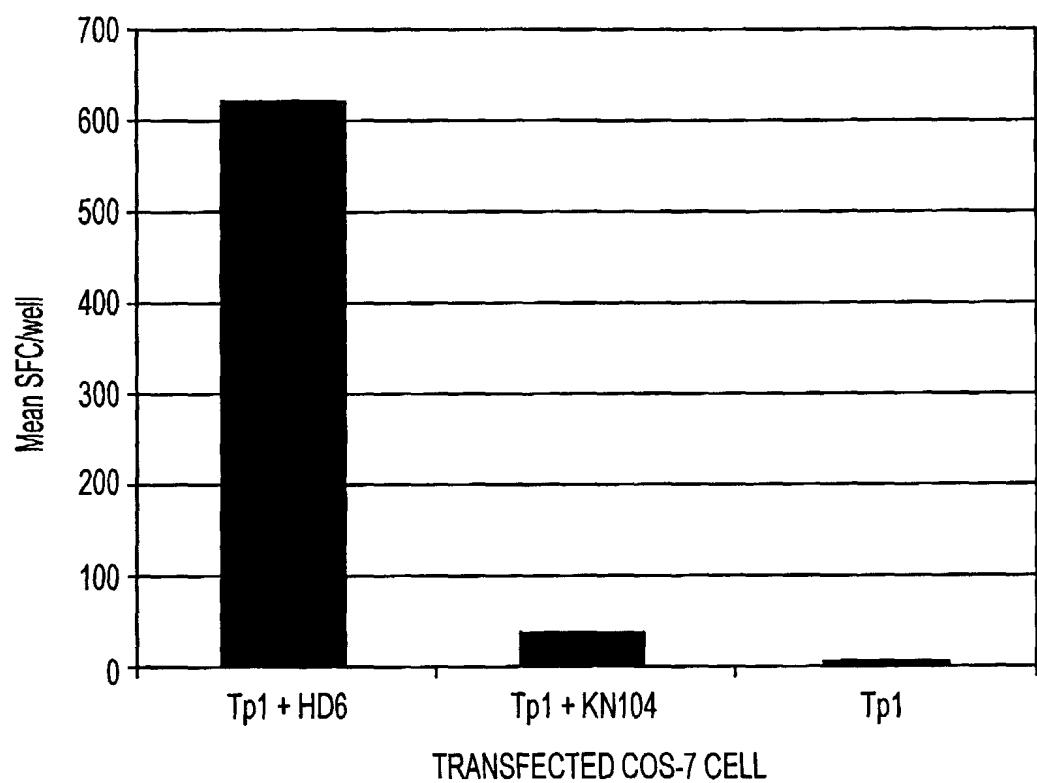


FIG. 5

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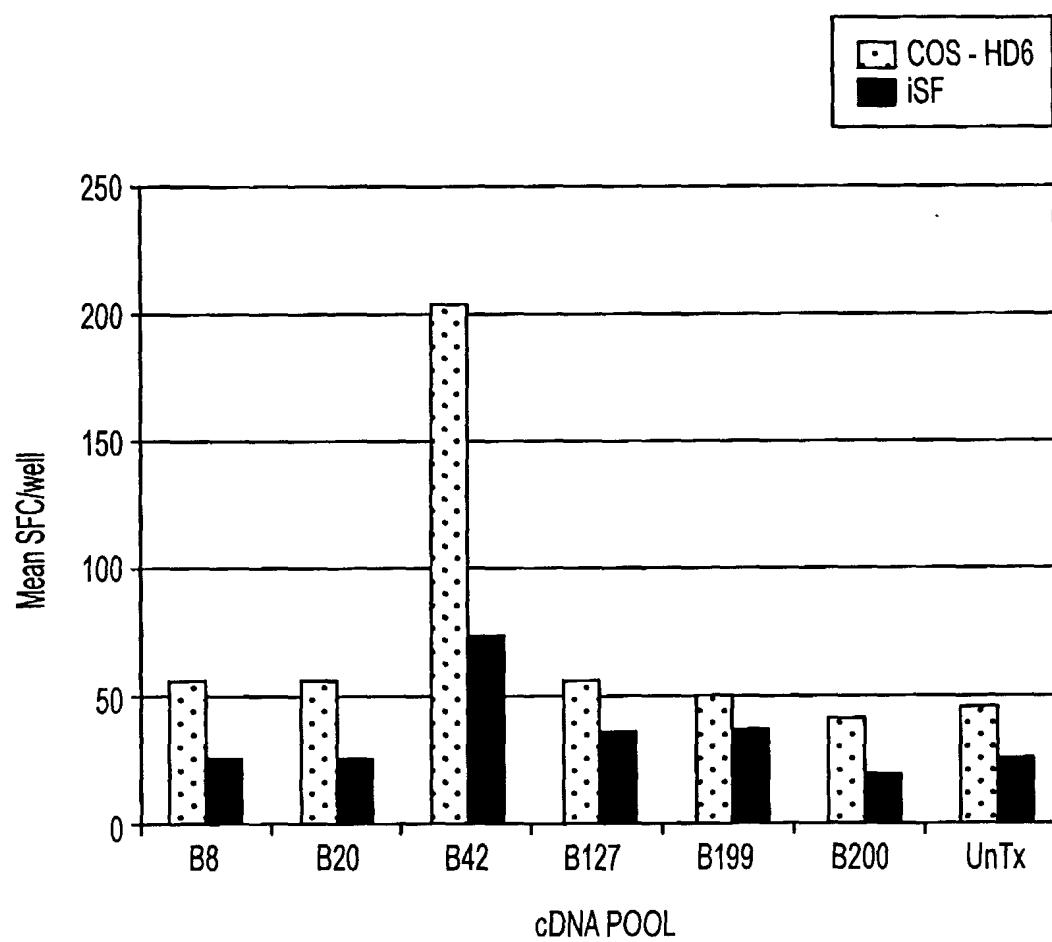


FIG. 6

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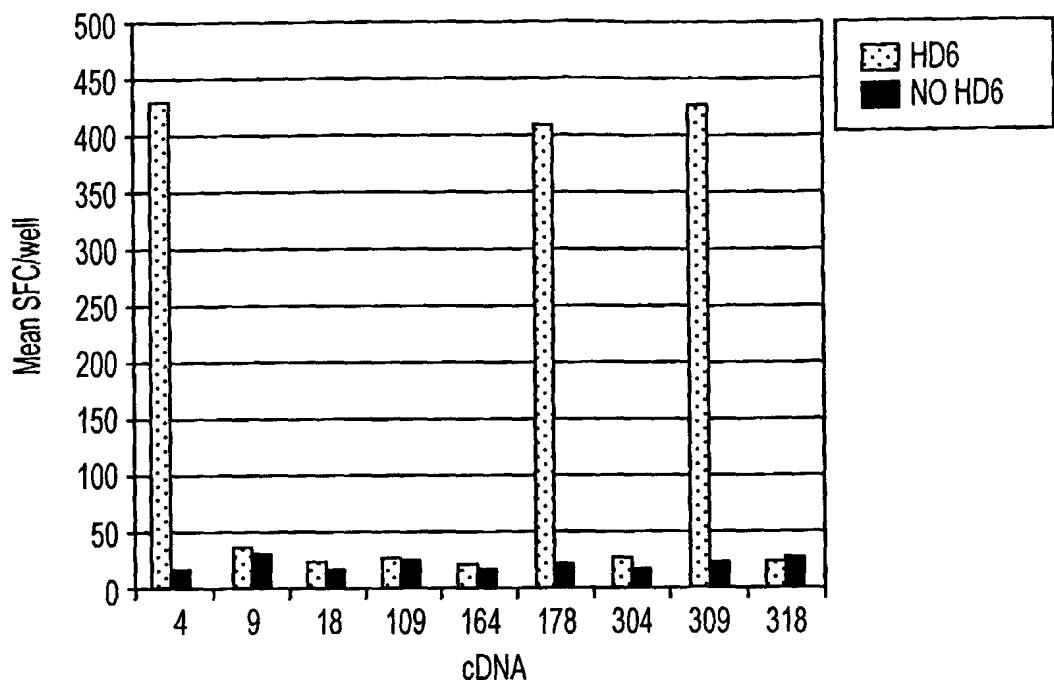


FIG. 7A

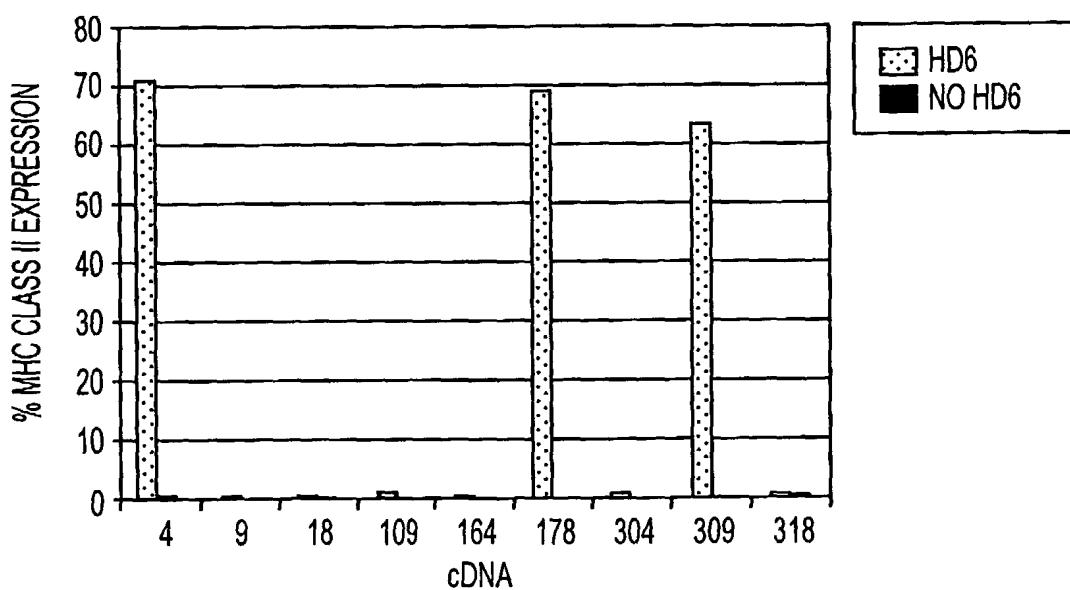


FIG. 7B

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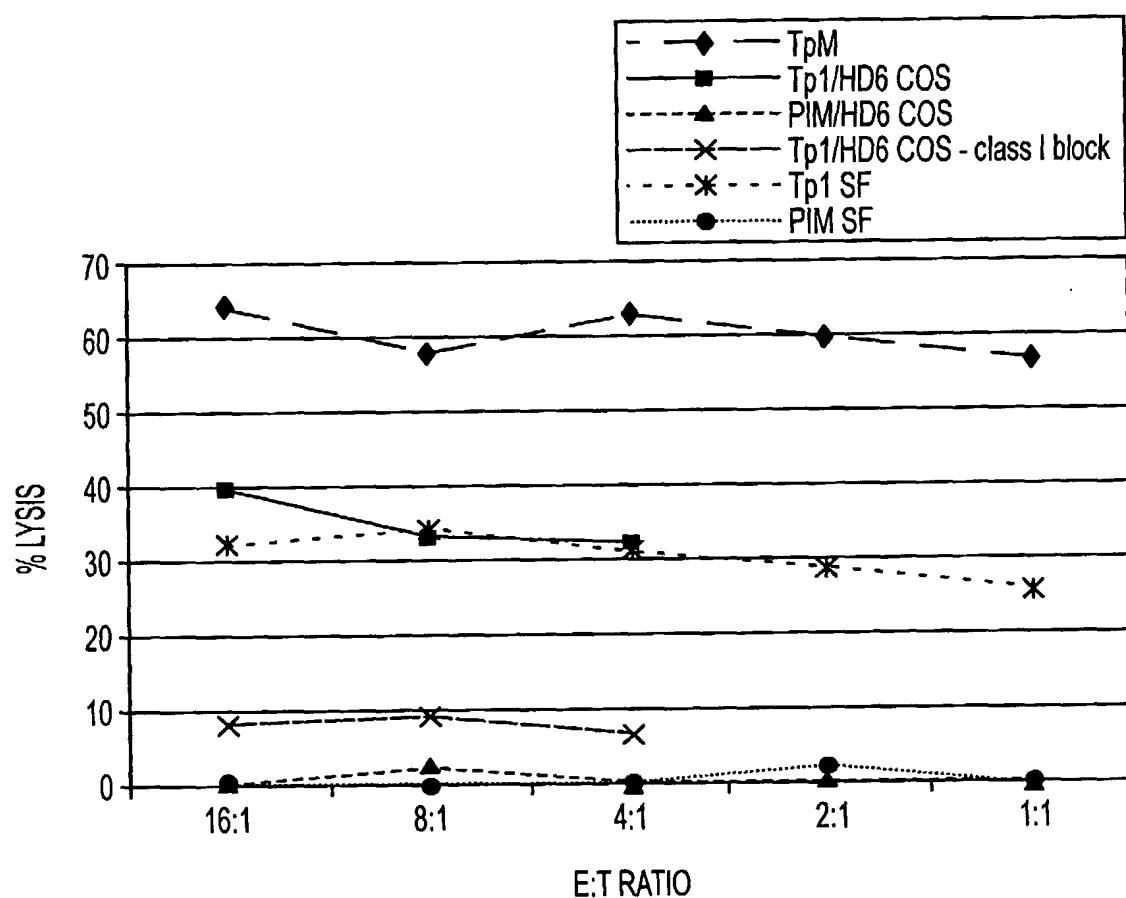


FIG. 8

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	10	20	30	40	50	60	70
80							
Tp1 ORF	MRVKKVLLYT	LPVVGILLAG	SLIIFNFVRK	RPEKEEEELKP	PSALEDLKK	REEESRKRM	EMQKEILEKK
Tp1 Del1	MRVKKVLLYT	LPVVGILLAG	SLIIFNFVRK	RPEKEEEELKP	PSALEDLKK	REEESRKRM	EMQKEILEKK
Tp1 Del2	MRVKKVLLYT	LPVVGILLAG	SLIIFNFVRK	RPEKEEEELKP	PSALEDLKK	REEESRKRM	EMQKEILEKK
Tp1 Del3	MRVKKVLLYT	LPVVGILLAG	SLIIFNFVRK	RPEKEEEELKP	PSALEDLKK	REEESRKRM	EMQKEILEKK
Tp1 Del4	MRVKKVLLYT	LPVVGILLAG	SLIIFNFVRK	RPEKEEEELKP	PSALEDLKK	REEESRKRM	EMQKEILEKK
Tp1 Del5	MRVKKVLLYT	LPVVGILLAG	SLIIFNFVRK	RPEKEEEELKP	PSALEDLKK	REEESRKRM	EMQKEILEKK
Tp1 Del6	MRVKKVLLYT	LPVVGILLAG	SLIIFNFVRK	RPEKEEE...			
90		100	110	120	130	140	150
Tp1 ORF	LEKREKEVVD	EFAKHLKKPE	ERLPKIIITL	DSGFPTVDPI	TYTSGVYMA	VSKTTFTSDS	DLVDFTHTLL
Tp1 Del1	LEKREKEVVD	EFAKHLKKPE	ERLPKIIITL	DSGFPTVDPI	TYTSGVYMA	VSKTTFTSDS	DLVDFTHTLL
Tp1 Del2	LEKREKEVVD	EFAKHLKKPE	ERLPKIIITL	DSGFPTVDPI	TYTSGVYMA	VSKTTFTSDS	DLVDFTHTLL
Tp1 Del3	LEKREKEVVD	EFAKHLKKPE	ERLPKII...	DSGFPTVDPI	TYTSGVYMA	VSKTTFTSDS	DLVDFTHTLL
Tp1 Del4	LEKREKEVVD	EFAKHLKKPE	ERLPKII...				
Tp1 Del5	LEKREKEVVD	EFAKHLKKPE	ERL...				
Tp1 Del6							
170		180	190		200	210	220
Tp1 ORF	FGGKTYTIKP	IEATMATSIA	FAADPGFCYF	LLIPGPDSKP	IFFKNDGDKF	LRCVGYPVK	EEMLEMATKF
Tp1 Del1	FGGKTYTIKP	IEATMATSIA	FAADPGFCYF	LLIPGPDSKP	IFFKNDGDKF	LRCVGYPVK	EEMLEMATKF
Tp1 Del2	FGGKTYTIKP	IEATMATSIA	FAADPGFCYF	LLIPGPDSKP	IFFKNDGDKF	LRCVGYPVK	EEMLEMATKF
Tp1 Del3							
Tp1 Del4							
Tp1 Del5							
Tp1 Del6							
250		260	270		280		290
Tp1 ORF	APPGVKPEAP	TPTPTTITPS	VPPTIPTPIT	PSAPPTTPPT	GLNFNLTQVN	KFMIGSQEVK	LNITHYEYEGV
Tp1 Del1	APPGVKPEAP	TPTPTTITPS	VPPTIPTPIT	PSAPPTTPPT	GLNFNLTQVN	KFMIGSQEVK	LNITHYEYEGV
Tp1 Del2	A...						
Tp1 Del3							
Tp1 Del4							
Tp1 Del5							
Tp1 Del6							
330		340	350		360		370
Tp1 ORF	GSFTPTSF	GDLPQTGLPV	NQTVDTIVVY	FHRVTMGEV	GIPLIVLIFY	KNQSRKYL	GNGNWEESKA
Tp1 Del1	GSFTPTSF	GDLPQTGLPV	NQTVDTIVVY	FHRVTMGEV	GIPLIVLIFY	KNQSRKYL	GNGNWEESKA
Tp1 Del2							
Tp1 Del3							
Tp1 Del4							
Tp1 Del5							
Tp1 Del6							
410		420	430		440		450
Tp1 ORF	DSIFNDFVT	NLSRRSDYR	NGTGTSEIEQ	TLDMNVYVEP	DTPCAGWTT	IHKLEEGGEG	GIEKPFQIRQ
Tp1 Del1	DSIFNDFVT	NLSRRSDYR	NGTGTSEIEQ	TLDMNVYVEP	DTPCAGWTT	IHKLEEGGEG	GIEKPFQIRQ
Tp1 Del2							
Tp1 Del3							
Tp1 Del4							
Tp1 Del5							
Tp1 Del6							
490		500	510		520		530
Tp1 ORF	FPMGKVSIVN	VYGKNDPLS	YAPSIFSVIR	EDGIQIFYVR	AYSQYLLDSS	VNPQNLQPKL	NTL*
Tp1 Del1	FPMGKVSIVN	VYGKNDPLS	YAPSIFSVIR	EDGIQIFYVR	AYSQYLLDSS	VNPQNLQPKL	NTL*
Tp1 Del2							
Tp1 Del3							
Tp1 Del4							
Tp1 Del5							
Tp1 Del6							
540							550

FIG. 9

SUBSTITUTE SHEET (RULE 26)

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	200	210	220	230	240
Tp1.1	mPGPDSKP	IFFKNDGDKF	LRCVGYPKVK	EEMLEMATKF	NRLPKGVEIP
Tp1.2					
Tp1.3					
Tp1.4	mPGPDSKP	IFFKNDGDKF	LRCVGYPKVK	EEMLEMATKF	NRLPKGVEIP
Tp1.5					
Tp1.6	mPGPDSKP	IFFKNDGDKF	LRCVGYPKVK	EEMLEMATKF	NRLPKGVEIP
	250	260	270	280	290
Tp1.1	APPGVKPEAP	TPTPTTIT			
Tp1.2	mP	TPTTITPS	VPPTIPTPIT	PSAPPTPPT	GLNFNLTVQN
Tp1.3					
Tp1.4	APPGVKPEAP	TPTTITPSVP	PTIPTPITPS	APPTTPPTGL	NFNLTQVNKF
Tp1.5	mP	TPTTITPSVP	PTIPTPITPS	APPTTPPTGL	NFNLTQVNKF
Tp1.6	APPGVKPEAP	TPTTITPSVP	PTIPTPITPS	APPTTPPTGL	NFNLTQVNKF
	300	310	320	330	340
Tp1.1					
Tp1.2	KFMIGSQEVK	LNITHEYEGV	YEAKKYFI		
Tp1.3		mGV	YEAKKYFIER	GSFTPTTSFSI	GDLPQTGLPV
Tp1.4	KFMIGSQEVK	LNITHEYEGV	YEAKKYFIER	GSFTPTTSFSI	GDLPQTGLPV
Tp1.5	KFMIGSQEVK	LNITHEYEGV	YEAKKYFIER	GSFTPTTSFSI	GDLPQTGLPV
Tp1.6	KFMIGSQEVK	LNITHEYEGV	YEAKKYFIER	GSFTPTTSFSI	GDLPQTGLPV
	350	360	369		
Tp1.1					
Tp1.2					
Tp1.3	NQTVDTIVVV	FHRVTMGEPV	GIPLIVLIF		
Tp1.4					
Tp1.5	NQTVDTIVVV	FHRVTMGEPV	GIPLIVLIF		
Tp1.6	NQTVDTIVVV	FHRVTMGEPV	GIPLIVLIF		

FIG. 10

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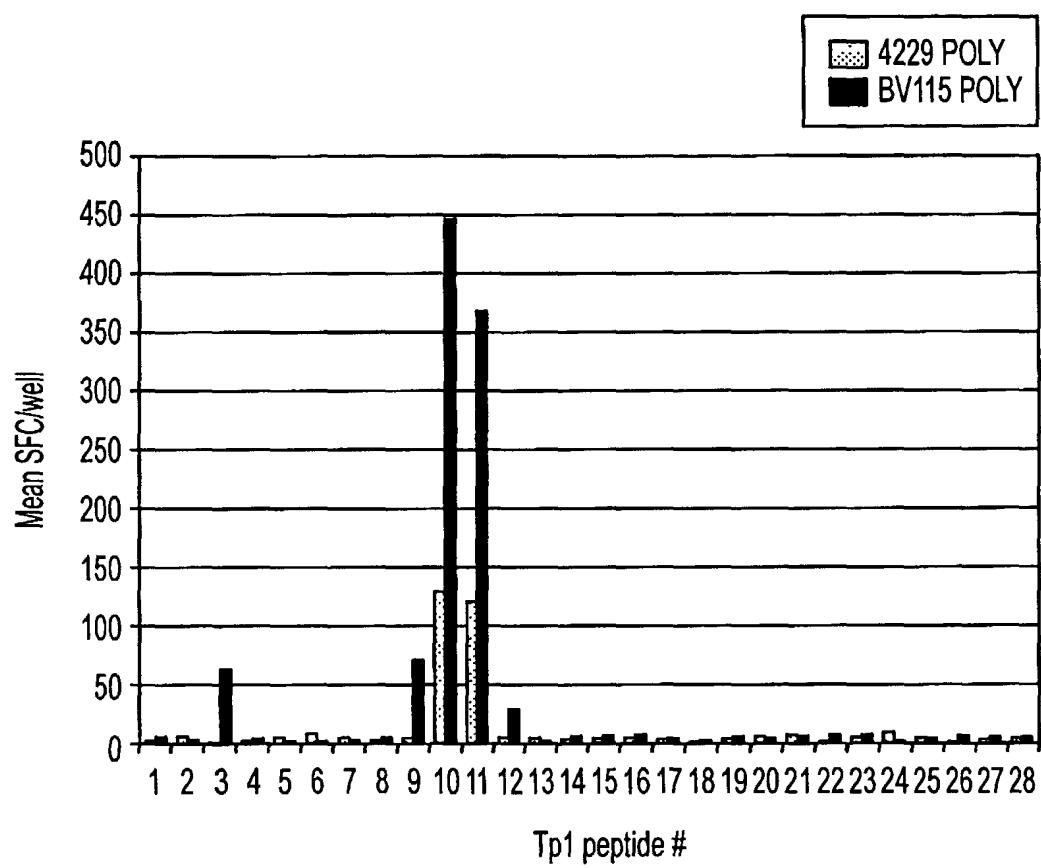


FIG. 11

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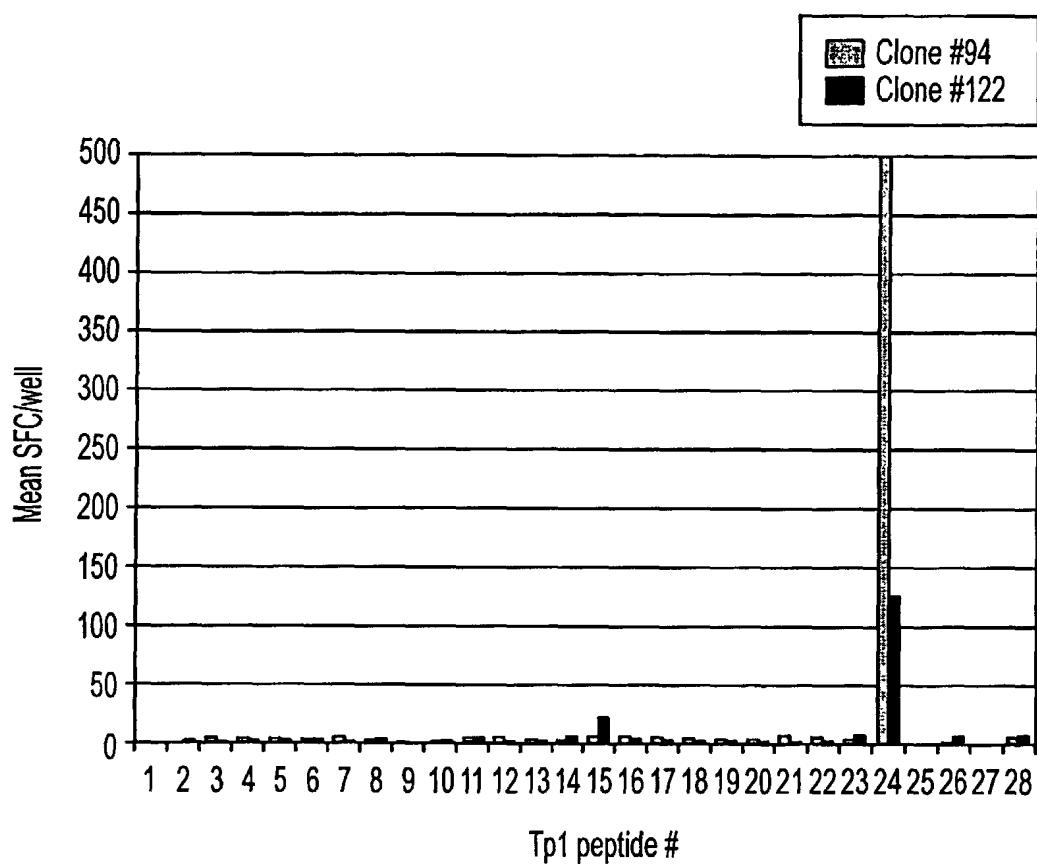


FIG. 12

	10	20	30	40	50	60
Tp1Muguga	MRVKKVLLYTLPPVGILLAGSLIIFNFVRKRPEKEEEELKPPSALEDELKKREEESRKRM	.....	.....	.....	.....	.....
Tp1Marikebuni	MRVKKVLLYTLPPVGILLAGSLIIFNFVRKRPEKEEEELKPPSALEDELKKREEESRKRM	.....	.....	.....	.....	.....
	10	20	30	40	50	60
	70	80	90	100	110	120
Tp1Muguga	EMQKEILEKKLREGKKALEELEKREKEVVDEFAKHLKKPEERLPKIIILDSGFPTVDPI	.....	.....	.....	.....	.....
Tp1Marikebuni	EMQKEILEKKLREGKKALEELEKCEKEMVDEFEKHLKKPEERLPKIIILDSGFPTVDPI	.....	.....	.....	.....	.....
	70	80	90	100	110	120
	130	140	150	160	170	180
Tp1Muguga	TYTSGVYVMAVSKTTFTSDSDLVDFTHTLLGIKFLVTGVQFGGKTYTIKPIEATMATSIA	.....	.....	.....	.....	.....
Tp1Marikebuni	TYTSGVYVMAVSKTTFTSDSDLVDFTHTLLGIKFLVAGVQFGGKTYTIKPIEATMATSIA	.....	.....	.....	.....	.....
	130	140	150	160	170	180
	190	200	210	220	230	240
Tp1Muguga	FAADPGFCYFLLIPGPDSKPIFFKNDGDKFLRCVGYPKVKEEEMLEMATKFNRLPKGVEIP	.....	.....	.....	.....	.....
Tp1Marikebuni	FAADPGFCYFLLIPGPDSKPIFFKNDGDKFLRCVGYPKVKEEEMLEMATKFNRLPKGVEIP	.....	.....	.....	.....	.....
	190	200	210	220	230	240
	250	260	270	280	290	300
Tp1Muguga	APPGVKPEAPTPPTTITPSVPPTIPTPSAPPTTPPTGLNFNLTVQNKFIMGSQEVK	.....	.....	.....	.....	.....
Tp1Marikebuni	APPGVKPEAPTPPTTITPSVPPTIPTPSAPPTTPPTGLNFNLTVQNKFIMVGQSQEVK	.....	.....	.....	.....	.....
	250	260	270	280	290	300
	310	320	330	340	350	360
Tp1Muguga	LNIITHEYEGVYEAHKYFIERGSFTPTSFSIGDLPQTGLPVNQTVDTIVVVFHRVTMGEPV	.....	.....	.....	.....	.....
Tp1Marikebuni	LNIITHEYDGVYEAHKYFIEKGRFTPTSFSIGADPQTGLPVNQTVDTIVVVFHRVTMGEPV	.....	.....	.....	.....	.....
	310	320	330	340	350	360
	370	380	390	400	410	420
Tp1Muguga	GIPLIVLIFYKNQSRKYLNKGNGNWEESKALLFREELDYLDSIFNDFTVNLSSRRSDYYR	.....	.....	.....	.....	.....
Tp1Marikebuni	GIPLIVLVFYKNQSTKYLNKGNGNWEESKALLFREELDFLDSMFNGYVTVNLSSRRSDYYR	.....	.....	.....	.....	.....
	370	380	390	400	410	420
	430	440	450	460	470	480
Tp1Muguga	NGTGTSEIEQTLMNVYVEPDTPCAGWTTYIHKLEEGGEGGGIEKPFQIRQLWFSKQKFDI	.....	.....	.....	.....	.....
Tp1Marikebuni	NGTGTSEIEKTLMNVYVEPDTPCLGWTTYIHKLEEGGEGGGIEKPFQIRQLWFSKQKFDI	.....	.....	.....	.....	.....
	430	440	450	460	470	480
	490	500	510	520	530	540
Tp1Muguga	FPMGKVSIVNVYGNDEPLSYAPSIFSVIREDGIQIFYVRAYSQYLLDSSVNPQNLQKL	.....	.....	.....	.....	.....
Tp1Marikebuni	FPMGKVSIVNVYGNDEPLSYAPSIFSVIREDGIQIFYVRAYSQYLLDSSVNPQNLQKL	.....	.....	.....	.....	.....
	490	500	510	520	530	540
Tp1Muguga	NTL	.....	.....	.....	.....	.....
Tp1Marikebuni	..	.....	.....	.....	.....	.....

FIG. 13

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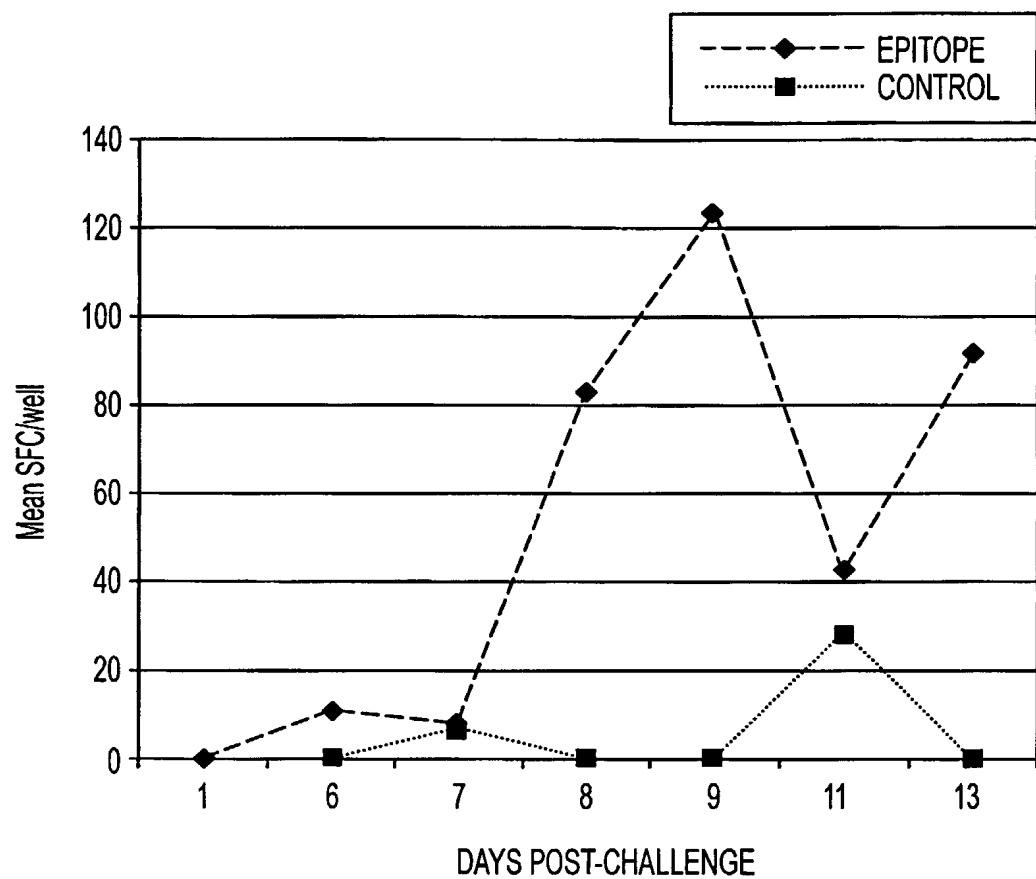


FIG. 14

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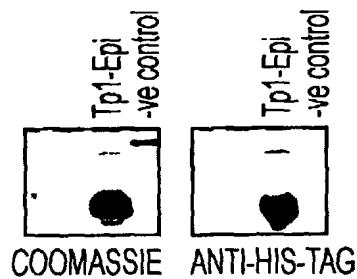
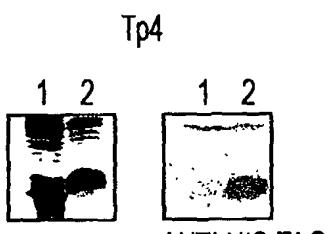


FIG. 15A



1: CRUDE; 2: PURIFIED

FIG. 15B

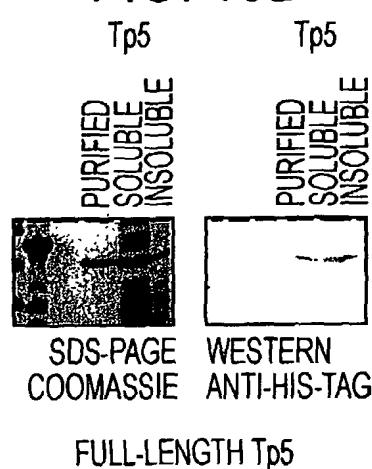


FIG. 15C

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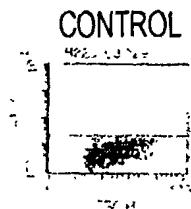


FIG. 16Aa

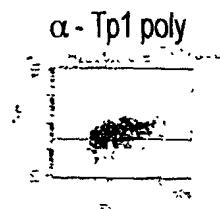


FIG. 16Ab

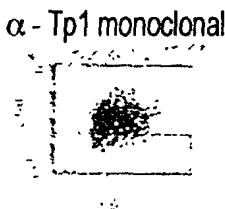


FIG. 16Ac

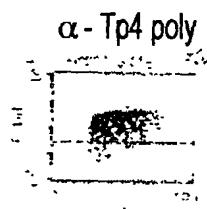


FIG. 16Ad

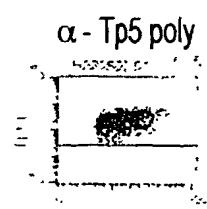


FIG. 16Ae

ANTIBODY	% OF T. PARVA INFECTED CELLS STAINED
Anti-Tp1 polyclonal Ab	78
Anti-Tp1 monoclonal Ab	85.96
Anti-Tp4 polyclonal Ab	92.52
Anti-Tp5 polyclonal Ab	96.04
Control	0.32

FIG. 16B

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Tp1	MATSIADAADPGECYFLILLPGPDSPK1FFKNDGDKFLRVCYGPVKKEEMLEMATKFNRNLPKGVEIAPPGVK
Kakuz521	MATSIADAADPGECYFLILLPGPDSPK1FFKNDGDKFLRVCYGPVKKEEMLEMATKFNRNLPKGVEIAPPGVK
Nyairoil02	MATSIADAADPGECYFLILLPGPDSPK1FFKNDGDKFLRVCYGPVKKEEMLEMATKFNRNLPKGVEIAPPGVK
Nyairoil17	MATSIADAADPGECYFLILLPGPDSPK1FFKNDGDKFLRVCYGPVKKEEMLEMATKFNRNLPKGVEIAPPGVK
Kakuzi521	MATSIADAADPGECYFLILLPGPDSPK1FFKNDGDKFLRVCYGPVKKEEMLEMATKFNRNLPKGVEIAPPGVK
Buffalo7344cl	MATSIADAADPGECYFLILLPGPDSPK1FFKNDGDKFLRVCYGPVKKEEMLEMATKFNRNLPKGVEIAPPGVK
KillifKL2	MATSIADAADPGECYFLILLPGPDSPK1FFKNDGDKFLRVCYGPVKKEEMLEMATKFNRNLPKGVEIAPPGVK
D409TpMariakan	MATSIADAADPGECYFLILLPGPDSPK1FFKNDGDKFLRVCYGPVKKEEMLEMATKFNRNLPKGVEIAPPGVK
KillifBR305	MATSIADAADPGECYFLILLPGPDSPK1FFKNDGDKFLRVCYGPVKKEEMLEMATKFNRNLPKGVEIAPPGVK
KillifIKL1	MATSIADAADPGECYFLILLPGPDSPK1FFKNDGDKFLRVCYGPVKKEEMLEMATKFNRNLPKGVEIAPPGVK
Zambia2	MATSIADAADPGECYFLILLPGPDSPK1FFKNDGDKFLRVCYGPVKKEEMLEMATKFNRNLPKGVEIAPPGVK
Uganda	MATSIADAADPGECYFLILLPGPDSPK1FFKNDGDKFLRVCYGPVKKEEMLEMATKFNRNLPKGVEIAPPGVK
Tp1	PEAPTPPTITPSVPPITPTPITPSAPPPTPTGLNFNLTQNKFMIGSQEVKLNITHEEGVYEAHKYFI
Kakuzi521	PEAPTPPTITPSVPPITPTPITPSAPPPTPTGLNFNLTQNKFMIGSQEVKLNITHEEGVYEAHKYFI
Nyairoil02	PEAPTPPTITPSVPPITPTPITPSAPPPTPTGLNFNLTQNKFMIGSQEVNLNITHEEGVYEAHKYFI
Nyairoil17	PEAPTPPTITPSVPPITPTPITPSAPPPTPTGLNFNLTQNKFMIGSQEVNLNITHEEGVYEAHKYFI
Kakuzi521	PEAPTPPTITPSVPPITPTPITPSAPPPTPTGLNFNLTQNKFMIGSQEVNLNITHEEGVYEAHKYFI
Buffalo7344cl	PEAPTPPTITPSVPPITPTPITPSAPPPTPTGLNFNLTQNKFMIGSQEVNLNITHEEGVYEAHKYFI
KillifKL2	PEAPTPPTITPSVPPITPTPITPSAPPPTPTGLNFNLTQNKFMIGSQEVNLNITHEEGVYEAHKYFI
D409TpMariakan	PEAPTPPTITPSVPPITPTPITPSAPPPTPTGLNFNLTQNKFMIGSQEVNLNITHEEGVYEAHKYFI
KillifBR305	PEAPTPPTITPSVPPITPTPITPSAPPPTPTGLNFNLTQNKFMIGSQEVNLNITHEEGVYEAHKYFI
KillifIKL1	PEAPTPPTITPSVPPITPTPITPSAPPPTPTGLNFNLTQNKFMIGSQEVNLNITHEEGVYEAHKYFI
Zambia2	PEAPTPPTITPSVPPITPTPITPSAPPPTPTGLNFNLTQNKFMIGSQEVNLNITHEEGVYEAHKYFI
Uganda	PEAPTPPTITPSVPPITPTPITPSAPPPTPTGLNFNLTQNKFMIGSQEVNLNITHEEGVYEAHKYFI

FIG. 17

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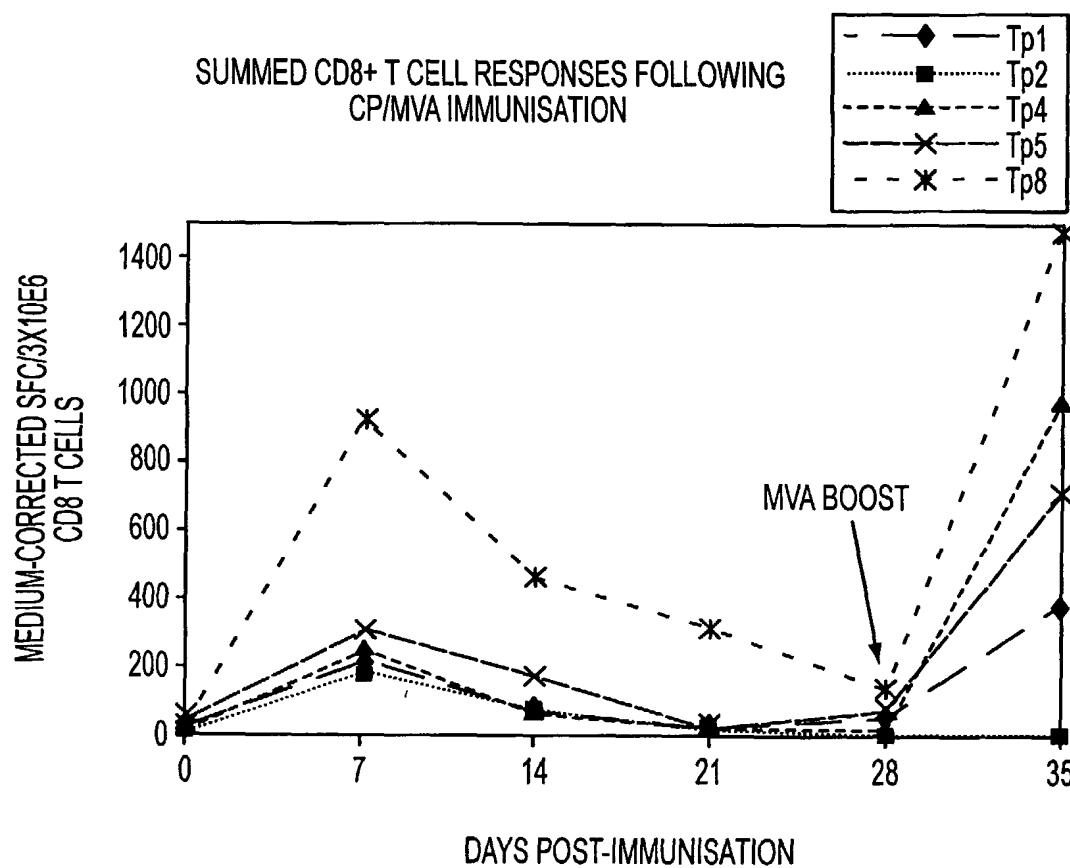


FIG. 18

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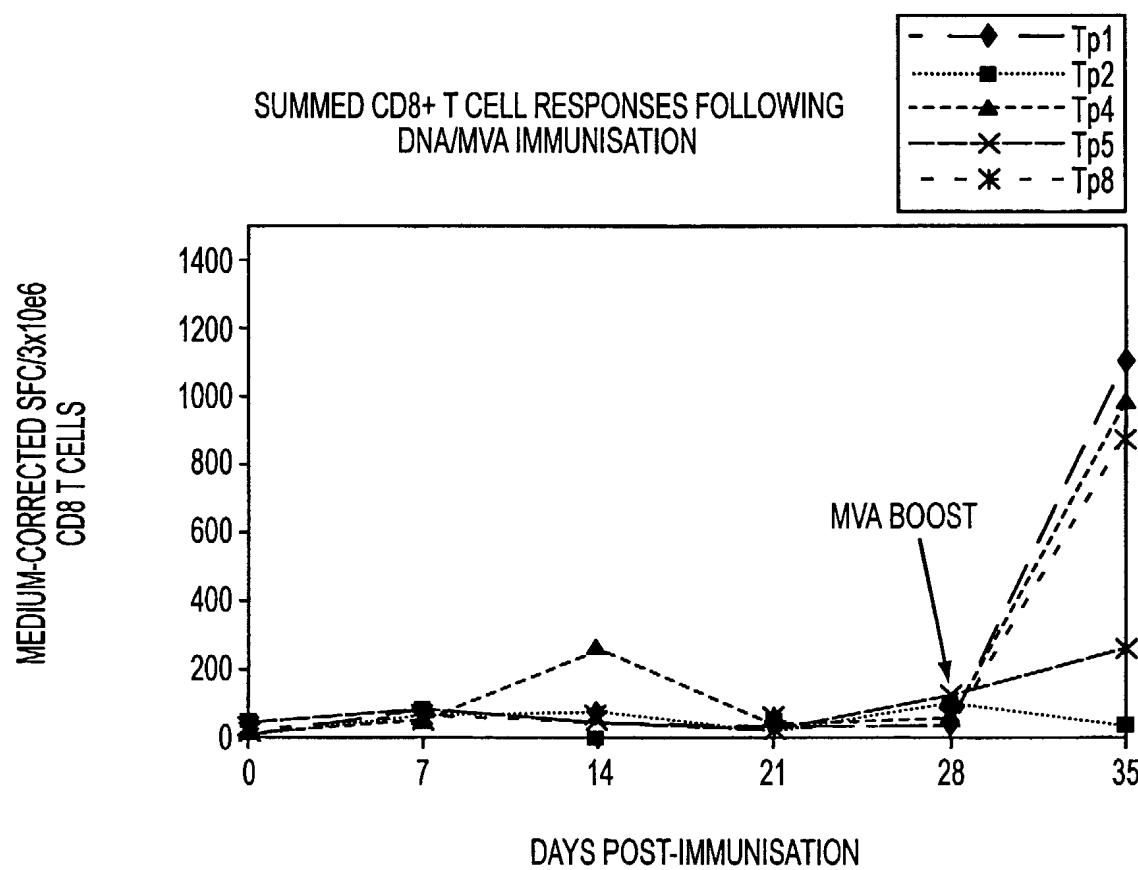


FIG. 19

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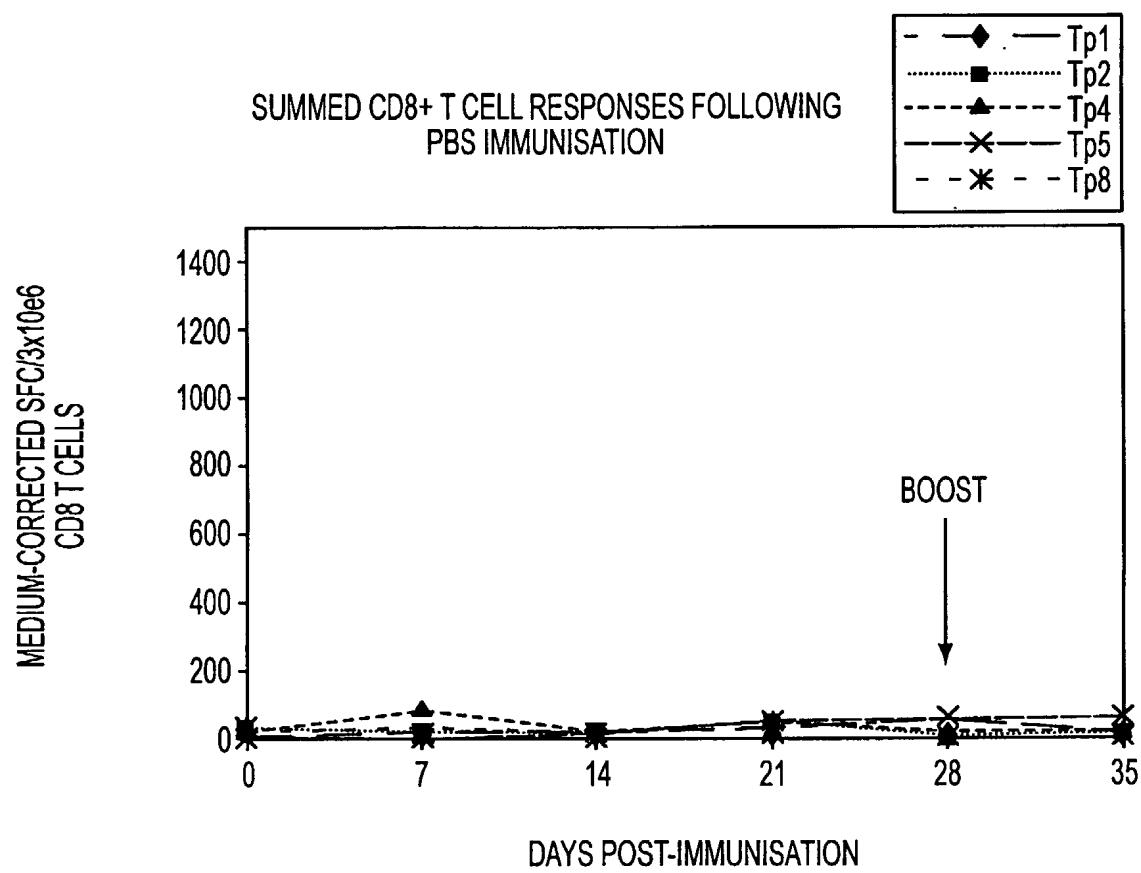


FIG. 20